

## UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

### COMMONWEALTH EDISON COMPANY

### DOCKET NO. STN 50-454

#### BYRON STATION, UNIT NO. 1

## AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 45 License No. NPF-37

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) dated October 26, 1990, as supplemented April 23, 1991, November 18, 1991 and February 6, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations:
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-37 is hereby amended to read as follows:

### (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A as revised through Amendment No. 45 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

For

Richard J. Barrett, Director Project Directorate III-2 Division of Reactor Projects - III/IV/V Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: March 25, 1992

# FACILITY OPERATING LICENSE NO. NPF-37 DOCKET NO. STN 50-454

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

| Rem | ove Pages | Ins | Insert Pages |  |  |
|-----|-----------|-----|--------------|--|--|
|     | 2-5       |     | 2-5          |  |  |
| 3/4 | 3-26      | 3/4 | 3-26         |  |  |

## TABLE 2.2-1 (Continued)

## REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

| FUNCTIONAL UNIT |   | TOTAL<br>ALLOWANCE (TA) Z |      | SENSOR<br>ERROR<br>(SE) | TRIP SETPOINT                            | ALLOWABLE VALUE                            |  |
|-----------------|---|---------------------------|------|-------------------------|--|--|--|
| 12.             | Reactor Coolant Flow-Low                      | 2.5                       | 1.77 | 0.6                     | >90% of loop mini-<br>mum measured flow* | >89.2% of loop mini~<br>mum measured flow* |  |
| 13.             | Steam Generator Water<br>Level Low-Low        |                           |      |                         |  |  |  |
|                 | a. Unit 1                                     | N.A.                      | N.A. | N.A.                    | ≥33.0% of narrow range instrument span   | ≥31.0% of narrow range instrument span     |  |
|                 | b. Unit 2                                     | N. A                      | N.A  | N.A.                    | >36.3% of narrow range instrument span   | ≥35.4% of narrow range instrument span     |  |
| 14.             | Undervoltage - Reactor<br>Coolant Pumps       | 12.0                      | 0.7  | 0                       | >5268 volts ~                            | >4728 volts -<br>each bus                  |  |
| 15.             | Underfrequency - Reactor<br>Coolant Pumps     | 14.4                      | 13.3 | 0                       | ≥57.0 Hz                                 | ≥56.5 Hz                                   |  |
| 16.             | Turbine Trip                                  |                           |      |                         |  |  |  |
|                 | a. Emergency Trip Header<br>Pressure          | N.A.                      | N.A. | N.A.                    | ≥540 psig                                | ≥520 psig                                  |  |
|                 | b. Turbine Throttle Valve<br>Closure          | R. A.                     | N.A. | M.A.                    | ≥1% open                                 | ≥1% open                                   |  |
| 17.             | Safety Injection Input<br>from ESF            | N.A.                      | N.A. | N.A.                    | N.A.                                     | N.A.                                       |  |
| 18.             | Reactor Coolant Pump<br>Breaker Position Trip | N.A.                      | N.A. | N.A.                    | N.A.                                     | N.A.                                       |  |

<sup>\*</sup>Minimum measured flow = 97,600 gpm

## TABLE 3.3-4 (Continued)

## ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

| FUNC | CTION | AL UNIT   | TOTAL<br>ALLOWANCE (TA)              | Z          | SENSOR<br>ERROR (SE) | TRIP<br>SETPOINT                                | ALLOWABLE VALUE                             |
|------|-------|---|--------------------------------------|------------|----------------------|---|---|
| 5.   |       | bine Trip and<br>dwater Isolation (continu  | ed)                                  |            |                      |   |   |
|      | С.    | Safety Injection  | See Item 1. abo<br>Allowable Value   | ve for all | Safety 'njec         | tion Trip Setp                                  | oints and                                   |
| 6.   | Aux   | iliary Feedwater  |                                      |            |                      |   |   |
|      | a.    | Manual Initiation   | N.A.                                 | N.A.       | N. A.                | N.A.  | N.A.  |
|      | b.    | Automatic Actuation<br>Logic and Actuation<br>Relays  | N.A.                                 | N. A.      | N. A.                | N. A.   | N.A.  |
|      | c.    | Steam Generator Water<br>Level-Low-Low-Start<br>Motor-Driven Pump and<br>Diesel-Driven Pump |                                      |            |                      |   | n.n.  |
|      |       | 1) Unit 1   | N.A.                                 | N.A.       | N.A.                 | >33.0% of narrow range instrument               | >31.0% of<br>narrow ranginstrument          |
|      |       | 2) Unit 2   | N.A.                                 | N.A.       | N.A.                 | >36.3% of<br>narrow range<br>instrument<br>span | span >35.4% of narrow range instrument span |
|      | d.    | Undervoltage-RCP Bus-<br>Start Motor Driven Pump<br>and Diesel-Driven Pump                  | N.A.                                 | N.A.       | N.A.                 | ≥5268 volts                                     | ≥4728 volts                                 |
|      | e.    | Safety Injection-<br>Start Motor-<br>Driven Pump and<br>Diesel-Driven Pump                  | See Item 1. abov<br>Allowable Values | ve for all | Safety Injec         | tion Trip Setpo                                 | oints and                                   |



## NUCLEAR REGULATORY COMMISSION

### COMMONWEALTH EDISON COMPANY

### DOCKET NO. STN 50-456

## BRAIDWOOD STATION, UNIT NO. 1

## AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 34 License No. NPF-72

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Commonwealth Edison Company (the licensee) da'ed October 26, 1990, as supplemented April 23, 1991, November 18, 1991 and February 6, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations:
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-72 is hereby amended to read as follows:

## (2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 34 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technic Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Richard J. Barrett, Director Project Directorate III-2

Division of Reactor Projects - III/IV/V Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: March 25, 1992

# FACILITY OPERATING LICENSE NO. N°F-72 DOCKET NO. STN 50-456

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

| Remove Pages | Insert Pages |
|--------------|--------------|
| 2-5          | 2-5          |
| 3/4 3-26     | 3/4 3-26     |
| 3/4 3-26a    |              |

## REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

| 1000 - E  | UNCTIONAL UNIT   | TOTAL<br>ALLOWANCE (TA)                          | 7   | SENSOR<br>ERROR                                 | TRID CETROLUT  |  |
|-----------|--|--|---|---|--|--|
| NITS 1    | 2. Reactor Coolant Flow-Low                                    | 2.5  | 1.77  | 0.6   | TRIP SETPOINT  >90% of loop minimum measured flow*                                     | >89.2% of loop<br>minimum measured<br>flow*  |
| N 1       | <ol> <li>Steam Generator Water<br/>Level Low-Low</li> </ol>    |  |   |   |  | TIOW   |
|           | a. Unit 1  | N.A.   | N.A.  | N. A.   | >33.0% of narrow range instrument span   | >31.0% of narrow range instrument span   |
| 2-5       | b. Unit 2  | 17.0<br>(Cycle 3)<br>N.A. (Cycle 4<br>and after) | 14.78<br>(Cycle 3)<br>N.A. (Cycle 4<br>and after) | 1.5<br>(Cycle 3)<br>N.A. (Cycle<br>4 and after) | >17% (Cycle 3);<br>>36.3% (Cycle 4<br>and after) of<br>narrow range<br>instrument span | >15.3% (Cycle 3);<br>>35.4% (Cycle 4 and<br>after) of narrow<br>range instrument<br>span |
| 1         | <ol> <li>Undervoltage - Reactor<br/>Coolant Pumps</li> </ol>   | 12.0   | 0.7   | 0   | >5268 volts -<br>each bus  | >4728 volts -  |
| 1         | <ol> <li>Underfrequency - Reactor<br/>Coolant Pumps</li> </ol> | 14.4   | 13.3  | 0   | ≥57.0 Hz   | ≥56.5 Hz   |
| Anen I    | 6. Turbine Trip  |  |   |   |  |  |
| Amendment | a. Emergency Trip Header<br>Pressure                           | N.A.   | N.A.  | N.A.  | ≥540 psig  | ≥520 psig  |
| No.       | <ul> <li>Turbine Throttle Valve Closure</li> </ul>             | N.A.   | N.A.  | N.A.  | ≥1% open   | ≥1% open   |
| 41        | 7. Safety Injection Input<br>from ESF                          | N.A.   | N.A.  | N.A.  | N.A.   | N. A.  |
| 18        | 3. Reactor Coolant Pump<br>Breaker Position Trip               | N.A.   | N.A.  | N.A.  | N.A.   | N.A.   |
|           |  |  |   |   |  |  |

<sup>\*</sup>Minimum measured flow = 97,600 gpm

## ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SEIPOINTS

| FUN | CTION | AL UNIT   | TOTAL<br>ALLOWANCE (TA)                             | <u>Z</u>  | SENSOR<br>ERROR (SE)                               | TRIP<br>SETPOINT   | ALLOWABLE   |
|-----|-------|---|---|---|--|--|---|
| 5.  |       | bine Trip and<br>dwater Isolation (continu  | ued)  |   |  |  |   |
|     | c.    | Safety Injection  | See Item 1. about Allowable Value                   |   | Safety Injec                                       | ction Trip Setp  | oints and   |
| 6.  | Aux   | liary Feedwater   |   |   |  |  |   |
|     | ā.    | Manua! Initiation   | N.A.  | N.A.  | A.A.   | N.A.   | N.A.  |
|     | b.    | Automatic Actuation<br>Logic and Actuation<br>Relays  | N.A.  | N.A.  | N.A.   | N.A.   | N.A.  |
|     | c.    | Steam Generator Water<br>Level-Low-Low-Start<br>Motor-Driven Pump and<br>Diesel-Driven Pump |   |   |  |  |   |
|     |       | 1) Unit 1   | N. A  | N.A.  | 3.A.   | >33.0% of<br>narrow range<br>instrument<br>span  | >31.0% of<br>narrow range<br>instrument<br>span   |
|     |       | 2) Unit 2   | 17.0<br>(Cycle 3)<br>N.A.<br>(Cycle 4<br>and after) | 14.78<br>(Cycle 3)<br>N.A.<br>(Cycle<br>4 and<br>after) | 1.5<br>(Cycle 3)<br>N.A.<br>(Cycle 4<br>and after) | >17% (Cycle<br>3); >38.3%<br>(Cycle 4 and<br>after) of<br>narrow range<br>instrument<br>span | >15.3% (Cycle 3)<br>>35.4% (Cycle 4)<br>and after) of<br>narrow range<br>instrument<br>span |
|     | d.    | Undervoltage-RCP Bus-<br>Start Motor Driven Pump<br>and Diesel-Driven Pump                  | N.A.  | H.A.  | N.A  | ≥5268 volts  | ≥4728 volts   |
|     |       |   |   |   |  |  |   |

Safety Injection-Start Motor-Driven Pump and Diesel-Driven Pump

See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.